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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,703	10/03/2005	Hermann Franzen	MOS01 P-120	7438
28101 7590 06/22/2007 VAN DYKE, GARDNER, LINN AND BURKHART, LLP SUITE 207 2851 CHARLEVOIX DRIVE, S.E. GRAND RAPIDS, MI 49546			EXAMINER ADAMS, GREGORY W	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/526,703

Applicant(s)

FRANZEN ET AL.

Examiner

Gregory W. Adams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/4/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

***Information Disclosure Statement***

The information disclosure statement filed March 4, 2005 fails in part to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

***Drawings***

The drawings are objected to under 37 CFR 1.83(a) because they fail to show parallelogram type coupler mechanism (reference character 34) as described in the specification. Claim 8 also requires this structure. The feature must be identified or the recitation cancelled from claim 8. No new matter may be added. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary

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to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear if the recitation of a "conveying device cooperates with land-side and sea-side hoisting and lowering devices" requires the land-side and sea-side hoisting and lowering devices or must merely have the ability to cooperate with. Does cooperation mean they are part of the invention or merely describe the functionality of the conveying device? It would be better to positively recite the devices if Applicant considers them part of the invention, e.g. --a vertical support further including land-side and sea-side hoisting and lowering devices such that said horizontal conveying device...cooperates with said land-side and sea-side hoisting and lowering devices--. For purposes of examination, the Examiner assumes they will be positively recited in a subsequent amendment.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 26-27 & 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawase (JP 11-278790 A) (cited by Applicant).

With respect to claim 1, Kawase discloses a transfer plant comprising:

- a vertical support 4, 5 which is propped up at a land side and on which a horizontal extension arm 8 braced by a vertical support, wherein a horizontal extension arm protrudes across a ship that is to be unloaded on a sea side;
- a horizontal conveying device adapted to travel along an extension arm, wherein a conveying device cooperates with land-side and sea-side hoisting and lowering devices 9, 12 that pick up and put down containers arranged at a land and sea side and also on a horizontal extension arm; and
- wherein a conveying device comprises at least two horizontal conveying devices 17, 26 arranged on a horizontal extension arm wherein at least two horizontal conveying devices are adapted to travel independently of each other and alongside (FIG. 2) each other between the land-side and sea-side hoisting and lowering devices along said horizontal extension arm.

With respect to claim 2, Kawase discloses including intermediate storage devices that are arranged on A horizontal extension arm in A region of at least one chosen from

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A land-side and the sea-side hoisting and lowering devices, wherein containers can be put down or picked up by the land-side or sea-side hoisting and lowering devices, as well as the horizontal conveying devices.

With respect to claim 26, Kawase discloses a frame with a rail traversing mechanism that can travel on said railways, a hoisting mechanism and a spreader to receive the container which has been swiveled and positioned underneath the spreader.

With respect to claim 27, Kawase discloses a land-side hoisting and lowering device is configured as a lift guided on said vertical support wherein said lift comprises a trolley, guided on a horizontal hoisting beam, with a load suspension means for the container, wherein said hoisting beam is suspended from hoisting cables and linked by a cross rail to guide rollers that can roll against said vertical support.

With respect to claim 30, Kawase discloses a gantry type substructure, supported on said rail traversing mechanisms, wherein said extension arm protrudes across said substructure on the land side, and said vertical support is propped up centrally on said substructure at the land side.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5 & 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawase (JP 11-278790 A) (cited by Applicant) in view of Martin et al. (US 4,546,852).

With respect to claim 3, Kawase discloses a rigid sea-side base arm and a rigid land-side arm fastened to a vertical support, wherein a rigid sea-side base arm accommodates a sea-side hoisting and lowering device in a position of rest of a transfer plant and does not disclose a swivel arm joined at a sea side. Martin et al. disclose a swivel arm 14, 22 for compact shipment and as well as retraction to reduce a hazardous condition to ship traffic. C1/L25-35. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the arm of Kawase to include a swivel arm, as per the teachings of Martin et al., for shipment and safety.

With respect to claim 4, Kawase discloses a railway carried by a sea-side portion of a horizontal extension arm wherein a railway is for movement of a trolley 9 of a sea-side hoisting and lowering device, wherein a land-side hoisting and lowering device 12 is fastened at a land-side portion of a horizontal extension arm, said transfer plant further including other railways for horizontal conveying devices are arranged on both sides next to a railway of a sea-side hoisting and lowering device and next to the land-side hoisting and lowering device essentially along the entire horizontal extension arm.

With respect to claim 5, Kawase discloses a vertical support fashioned in the shape of a tower, wherein said railway for a hoisting and lowering device ends in a region of a vertical support, and other railways for said horizontal conveying devices run laterally past a vertical support.

Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawase (JP 11-278790 A) (cited by Applicant) in view of Martin et al. (US 4,546,852) and Tax et al. (US 5,931,625) (cited by Applicant).

With respect to claims 6-7 & 9, Kawase discloses an intermediate storage device, and does not disclose a column, horizontal swivel arm and carrying frame that rotates +/- 90 degrees. Tax et al. disclose in FIG. 8a a downwardly extending support column 558, horizontal swivel arm 556 and carrying frame 522 such that between the carrying frame 522 and water trolley 528 the position of two containers can be changed reducing unloading cycle time. C13/L40-C14/L15. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Kawase to include a column, horizontal swivel arm and carrying frame, as per the teachings of Tax et al., to decrease unloading time.

Martin's swivel arm rotates +/- 90 degrees for compact shipment and as well as retraction to reduce a hazardous condition to ship traffic. C1/L25-35. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the arm of Kawase to include a swivel +/- 90 degrees, as per the teachings of Martin et al., for shipment and safety.

With respect to claim 8, Kawase discloses a parallelogram coupler mechanism 47 (skilled artisans also understand this structure as pantographs) to reduce a hazardous condition to ship traffic. C1/L25-35. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the



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apparatus of Kawase to include parallelogram coupler mechanism, as per the teachings of Martin et al., for shipment and safety.

With respect to claim 10, Kawase discloses a frame with a rail traversing mechanism that can travel on said railways, a hoisting mechanism and a spreader to receive the container which has been swiveled and positioned underneath the spreader.

With respect to claim 11, Kawase discloses a land-side hoisting and lowering device is configured as a lift guided on said vertical support wherein said lift comprises a trolley, guided on a horizontal hoisting beam, with a load suspension means for the container, wherein said hoisting beam is suspended from hoisting cables and linked by a cross rail to guide rollers that can roll against said vertical support.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawase (JP 11-278790 A) (cited by Applicant) in view of Martin et al. (US 4,546,852), Tax et al. (US 5,931,625) (cited by Applicant) and Young (US 3,543,952).

With respect to claim 12, Kawase discloses cables and does not disclose a mobile counterweight. Young discloses a counterweight 166 for handling especially large, heavily loaded containers at a shipping terminal and improves efficiency. C1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Kawase to include a counterweight, as per the teachings of Young, to handling heavily loaded containers at a higher rate.

Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawase (JP 11-278790 A) (cited by Applicant) in view of Martin et al. (US 4,546,852),

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Tax et al. (US 5,931,625) (cited by Applicant), Young (US 3,543,952) and Weis (WO 9835905 A2; or see translation at US 2002/0031419).

With respect to claim 13, Kawase discloses loading stations and does not disclose loading stations having two pick-up and hand-off positions that can travel alternately. Weis discloses a loading station that is arranged beneath a land-side hoisting and lowering device 17, a loading station having two pick-up and hand-off positions 5, 5 that can travel alternately underneath said hoisting and lowering device, cooperating with a horizontal conveying system such that containers can be handled on land. Weis Abstract. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Kawase to include two pick-up and hand-off positions that can travel alternately, as per the teachings of Weis, for support on land of containers coming to and/or going from a transfer plant.

With respect to claim 14, Kawase discloses a gantry type substructure, supported on said rail traversing mechanisms, wherein said extension arm protrudes across said substructure on the land side, and said vertical support is propped up centrally on said substructure at the land side.

Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawase (JP 11-278790 A) (cited by Applicant) in view of Spies (US 3342849 A1) and Tax et al. (US 5,931,625) (cited by Applicant).

Kawase discloses a method of loading and unloading of containers from container ships comprising:

- a) for the unloading of containers from a container ship tied up at the dock,  
providing a spreader and picking up a container by said spreader of the sea-side hoisting and lowering device 17, which has been positioned on the horizontal extension arm 7 above the container, and raised to a maximum hoisting height;
- b) providing a carrying arm having a carrying frame 17a at the intermediate storage device arranged on the sea-side device;
- c) placing the container down on the carrying frame;
- d) positioning at least one of the horizontal conveying device[s] 9, 12 above the container on the carrying frame receiving the container and transporting the container to the end of the land-side extension arm 6, while the sea-side hoisting and lowering device picks up a new container;
- e) handing off the container at the land-side end of the extension arm 6 to a carrying frame of a second intermediate storage device 26;
- f) after detaching the container from the horizontal conveying device 26 moving a carrying frame with the container under the hoisting mechanism of the hoisting and lowering device hinged to the land-side extension arm and picking up the container is by a spreader
- g) moving the carrying frame and lowering the container by the hoisting and lowering device and handing off the container to a horizontal conveying system on the ground,
- h) concurrently with steps a through g, picking up a second container picked up by the sea-side hoisting and lowering device and transporting the second container

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by the second horizontal conveying device across its other railway to the end of the extension arm at the land side, where the second container is handled in the same fashion, and

- i) performing the steps a through h in reverse sequence for loading containers on a ship.

Kawase does not disclose providing a horizontally swiveling carrying arm having a horizontally swiveling carrying frame, swiveling a container along with a carrying frame, a downwardly extending support column or swiveling a carrying frame after detaching a container from a horizontal conveying device.

Spies discloses a horizontally swiveling carrying arm (FIG. 9: 41, 91) attached to a hoisting and lowering device 27, swiveling a container along with a carrying frame 41 and swiveling a carrying frame after detaching a container from a horizontal conveying device such that the transfer device can also be arranged between the traveling crab and the primary load-carrying means, and the latter can then at the same time be used as the load-carrying means of the transfer device. Spies Abstract. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Kawase to include a horizontally swiveling carrying arm attached to a hoisting and lowering device, swiveling a container along with a carrying frame and swiveling a carrying frame after detaching a container from a horizontal conveying device, as per the teachings of Spies, to create a buffer support surface between two bridge cranes operating independently.

Kawase discloses an intermediate storage device, and does not disclose a downwardly extending support column that swivels. Tax et al. discloses in FIG. 8a a downwardly extending support column 558, horizontal swivel arm 556 and carrying frame 522 such that between the carrying frame 522 and water trolley 528 the position of two containers can be changed reducing unloading cycle time. C13/L40-C14/L15. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Kawase to include a downwardly extending support column that swivels, as per the teachings of Tax et al., to decrease unloading time.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawase (JP 11-278790 A) (cited by Applicant) in view of Young (US 3,543,952).

With respect to claim 28, Kawase discloses cables and does not disclose a mobile counterweight. Young discloses a counterweight 166 for handling especially large, heavily loaded containers at a shipping terminal and improves efficiency. C1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Kawase to include a counterweight, as per the teachings of Young, to handling heavily loaded containers at a higher rate.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawase (JP 11-278790 A) (cited by Applicant) in view of Weis (WO 9835905 A2; or see translation at US 2002/0031419).

With respect to claim 29, Kawase discloses loading stations and does not disclose loading stations having two pick-up and hand-off positions that can travel

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alternately. Weis discloses a loading station that is arranged beneath a land-side hoisting and lowering device 17, a loading station having two pick-up and hand-off positions 5, 5 that can travel alternately underneath said hoisting and lowering device, cooperating with a horizontal conveying system such that containers can be handled on land. Weis Abstract. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Kawase to include two pick-up and hand-off positions that can travel alternately, as per the teachings of Weis, for support on land of containers coming to and/or going from a transfer plant.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W. Adams whose telephone number is (571) 272-8101. The examiner can normally be reached on M-Th, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene O. Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GWA



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SUPERVISORY PATENT EXAMINER